

## **Review of JPMA articles from 1953 to 2009. A trend over time**

*Sina Aziz\**, *Syed Wajahat Kamal\*\**, *Haris Riaz\*\**, *M. Kashif Riaz#*,  
*Kiran Ejaz#*, *Hiba Tauheed\*\**

*\*Associate Editor JPMA, Associate Professor Pediatrics, DUHS. \*\*Intern, JPMA, #Sub-Editor, member JPMA*

JPMA (Journal of Pakistan Medical Association) was the first medical journal of Pakistan and the first to be indexed in Pakistan. The number of original articles being printed in the 1950s were about 10 and have increased to nearly 150 by 2009. We decided to review these original articles from 1953 to 2009 and assess the quality of the components of each article by a pretested questionnaire/proforma containing a checklist of items.

This study was conducted at JPMA office from February 2010 to November 2010. Retrospective review of articles from Jan 1953 to Dec 2009 was done. A modified STROBE (Strengthening the Reporting of Observational studies in Epidemiology) statement (proforma) was made after discussion among the authors based on their local experience to finally include a revised checklist of 45 (major and minor) items instead of the original checklist of 18 items of the Strobe statement. Major items covered in each article, comprised title, abstract, background, objectives, methods, results, references, conclusion, table, acknowledgement, conflict of interest, reference number and style.

The results show that the trend of reporting most of the components of Introduction, results and discussion have increased progressively with time ( $p < 0.001$ ) whereas most components of methodology have remained consistent over the years. This study shows that most of the sub-components in results have been reported with significantly increased frequency as the years have progressed. This includes details pertaining to the participants and their pertinent demographic details, descriptive data and the main results ( $p < 0.01$ ).

We assessed discussion in terms of 7 sub-components of the modified STROBE statement and found that the concept of the study being described, key results, comparison with other local and international studies published

on a similar topic, interpretation, generalizability and limitations has shown an enhanced trend in the frequency of reporting.

Among other variables assessed mentioning of references in Vancouver style and using numbers in manuscript to indicate relevant references improved significantly with time.

The modified STROBE statement can be adapted by authors to promote uniformity and consistency and to ensure that imperative components are not missed while the papers are published. However, this statement is basically aimed at enhancing the writing skills only and is not meant to design a study, protocol, in accordance with the original purpose for which the authors conceived the statement. Our study depicts trend of Articles published in JPMA only and cannot be generalized for other local and international journals. Of the over 50 peer-reviewed biomedical journals, JPMA is one of the 4 indexed by Medline, hence it may not be representative of the quality and trend in general.

We conclude that a change in trend over time was observed in the last 56 years in major and minor items of the original articles published in JPMA showing improved reporting of various sub-components of articles. The Modified strobe statement provides a checklist for authors to improve the quality of their articles. Final manuscript of this work is under the process of publication. Above is only a brief summary.

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